

NEPRA PacketEar

— Newsletter of the New England Packet Radio Association —

PacketEar #55

February 1990

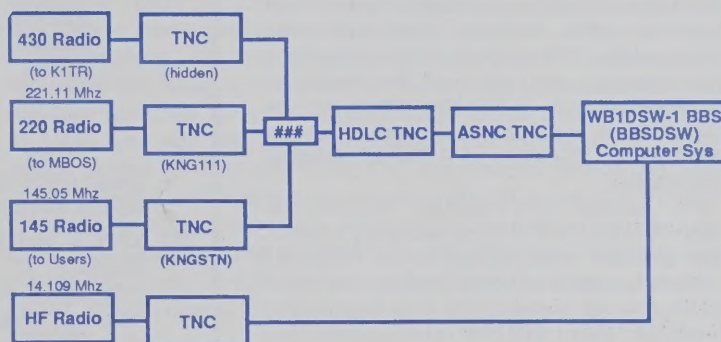
BBSDSW

by Herb Salls, WB1DSW

This piece will attempt to show users how the BBSDSW system is put together in a physical way. I hope that it helps you to understand just how the complex operates and perhaps will enable you to build one of your own. My thanks to WB2ELF for this suggestion.

Notes: The ### is a special diode matrix card joining the three radio ports—these are linked together “hardwire” at 9600 baud. You don’t have to access the BBS to get to the other two bands. You do have to access the BBS to monitor the HF radio. The 3-port node is multiconnect, that is, you can have BBS users and node users on any frequency at any time. The BBS runs six windows—six tasks that can service users or other BBSs forwarding concurrently. The 430 node link is “hidden”; that is, I don’t advertise its callsign since it serves a single purpose and there would be little value in gaining access to it. Coming from K1TR you should be able to C KNG111 or C KNGSTN to grab one of those TNCs. Or you could C WB1DSW-1 from K1TR to grab the BBS. Note there is no need to get to KNGSTN on a cross-band connect. We have ensured that BBSDSW (WB1DSW-1) propagates just far enough to make it an easy connect. Again, take note of the fact that the BBS (WB1DSW-1:BBSDSW) is itself very “nodelike” with its ability to post its existence into the adjacent nodes.

At KNGSTN or KNG111 the commands are CONNECT, CQ, INFO, NODES, ROUTES and USERS. CONNECT gives you the



ability to further connect to adjacent nodes in the nodeslist. CQ gives you the ability to call “CQ” from the TNC you’re located at. INFO gives a short blurb on the node inserted by the node-op. NODES will provide a listing of the available nodes this node can connect to. USERS allows you to see who else (or what else) is using this node now as well as who has called “CQ” within the last 15 minutes. Do not route mail TO or @ BBSDSW; just use the callsign WB1DSW.

A very handy “Node Users Guide” is available by joining the North East Digital Association, P.O. Box 563, Manchester, NH 03105-0563. Write for further details.



NEPRA AFFILIATION APPROVED BY ARRL

by Herb Salls, WB1DSW

At January’s regular monthly meeting, we announced that NEPRA’s application for ARRL affiliation had been approved and we said that we would publish information about this process in an upcoming newsletter. Well, here it is and it looks as though the application process was well worth the effort. Let’s take a look, then at some of the benefits YOU and your club will enjoy as part of this affiliation.

First of all, to achieve affiliation, NEPRA submitted a formal application back in October 1989. A second requirement was that NEPRA show that at least 51% of its current membership holds full or associate membership with the ARRL and they also must be licensed amateurs. An additional requirement is that our goals match pretty well with those of the League. On December 15, the approval letter was received.

The list of benefits is quite impressive on first glance. We will receive a copy of “Field

Forum”, quarterly issues jam packed with interesting news and ideas for and about clubs and Amateur Radio in general. Upon request, we will be sent the ARRL Annual Report. We are entitled to ARRL-sponsored liability and equipment insurance should we decide that such is necessary. The League will refer automatically, radio amateurs to NEPRA who express a desire to meet up with clubs. NEPRA can receive free, mailing labels or lists of ARRL members or Clubs and free lists of all amateurs in a specific city. A library of free films and other audio-visual aids and program materials. As a special note, only Affiliated Clubs are eligible for participation in the gavel competitions in the ARRL DX Contest, the ARRL November Sweeps and ARRL VHF Sweeps. If we decide to, we may receive a complete set of all ARRL publications for a discount price of \$120 (some clubs donate these materials to a local library for recognition). NEPRA is allowed to use the ARRL logo on newsletters and letterheads as well. The thing most people agree as a great individual benefit is NEPRA’s ability to obtain a \$2.00 commission for every ARRL membership renewal handled by the Club.

Let’s spend a moment discussing how this is to work and what procedures you should follow to take advantage of this provision. If you are a current NEPRA member you have the ability to send your renewal through

NEPRA and NEPRA is then authorized to deduct \$2 as a “commission”. The Board of Directors has decided to use this commission to increase the Club’s Treasury. Simply make your check or money order out in the name of “NEPRA” for the exact amount of your desired membership length. Do not send cash! Indicate on the check or money order the following notation: “NEPRA/ARRL RENEWAL”. Attach your ARRL renewal application. NEPRA will ensure that the League receives your renewal. If you do not send your renewal application through NEPRA, we will not receive the commission. To assist our membership in remembering the above procedures, we have attached a “clip out” located elsewhere in this newsletter so that you might post it in some convenient place. Youth, family and special blind memberships are not eligible for the commission. Newly signed up NEPRA members will be offered this option automatically when they enroll. Also, we have obtained a supply of ARRL Renewal Application Forms.

So there you have it in a nutshell. We look forward to a long and friendly relationship with our friends in Newington and hope that all our members, too, can find satisfaction knowing that NEPRA has joined the ranks of some 2000 other amateur radio clubs in sharing in the education, fun and public service that has always been an integral part of amateur radio.

NEPRA MEETING JANUARY 11, 1990

The regular meeting was called to order at 7:45 PM by President Jim Morris, K1UGM. We had 37 people in attendance.

Following the initial introductions by each attendee, which included a short comment of their interests, our guest speaker Mort Cohan, K1IU, spoke in detail about various amateur radio satellites, including early linear translators and on up to the latest digital "birds" to be launched soon. Included were comments about needing PSK modems, antenna tracking requirements, and the need for frequency tracking because of Doppler effects on the signal. Mort indicated there was a net on 3840 KC on Tuesdays at 9 PM for satellite enthusiasts.

Old business: The Treasurer reported the balance to be \$1285.38. The secretary's report was accepted as published in the *PacketEar* (which no one could read because the latest issue did not make it all the way to the meeting!). Herb (WB1DSW) also reported that NEPRA is now an ARRL affiliated club. The benefits of the affiliation will be reported next month. Because of an upcoming meeting of NEDA, it was requested that the President appoint some one to represent NEPRA. Pres. Morris appointed KA2DEW, Thad, to be the NEPRA rep which he agreed to do.

New business: Herb (WB1DSW) reported that both Rivendell Electronics and HRO will be having ads in the *PacketEar* which will contribute a total of \$30/month to the treasury. Doc, W1EO, would inquire of ARRL as to what is involved in the experimental use of 1200 Baud packet on 80 meters during the daylight hours. Thad, KA2DEW, comments on the activities of the NEDA. There was a discussion of TCP/IP activities. There was a review of the activities of the Committee of East Mass Clubs by Elaine, N1GTB, Chair. It was noted that because of personnel changes at the Museum of Science, there probably will not be a ham radio demonstration this year but instead, there may be one at the Computer Museum.

The meeting was adjourned at 10:10 PM.

Respectfully submitted,

Lew Scott, W1CE, Secy.

JANUARY TREASURER'S REPORT

During the month of January, NEPRA's Treasury saw quite a lot of activity on the plus side. We took in a total of \$160 in dues over the month. Our expenditures amounted to only \$74.25, all of which is attributed to sums for printing and mailing of the *PacketEar*. The membership should be aware that both Rivendell and Ham Radio Outlet have taken out ads in the newsletter. This revenue will, of course, be helpful in defraying the costs of producing the *PacketEar*, which is our one very strong function. On balance, the Treasury has a total of \$1283.63 at the end of January.

Also, in the area of equipment management, the Board of Directors received a request from WA1YDL for the use of two of NEPRA's TNCs,

REMAIL.DOC by Jack Callahan, N1BGG @ N1BGG

A facility for handling "book" mail (such as announcements or book traffic) has tentatively been installed at the N1BGG BBS. It works as follows:

- 1) It applies only to mail addressed in the following manner
SP or SB LISTFILE @ N1BGG.

The TITLE should indicate to whom you want the message addressed
IE: (ALL) then the TITLE of the message.

The following lists are supported:

NEBBS	NEW ENGLAND BBS's	SYSNE	SYSOP NEW ENGLAND
NHBBS	NEW HAMPSHIRE BBS's	SYSNH	SYSOP NEW HAMPSHIRE
MABBS	MASS BBS's	SYSMA	SYSOP MASSACHUSETTS
RIBBS	RHODE ISLAND BBS's	SYSRI	SYSOP RHODE ISLAND
MEBBS	MAINE BBS's	SYSME	SYSOP MAINE
VTBBS	VERMONT BBS's	SYSVT	SYSOP VERMONT
CTBBS	CONNECTICUT BBS's	SYSCT	SYSOP CONNECTICUT

Each piece of mail is remailed to one or more addressees identified in the listfile requested in the message header.

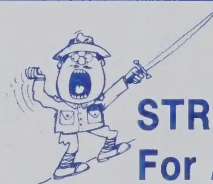
- 2) After a test period, all incoming mail for LISTFILES will be automatically remailed in the above fashion, perhaps with a service message to the originator. FOR THE TIME BEING, however, remailing will only happen as a result of sysop intervention.
- 3) You are welcome to use the service (let me know if problems occur, or, for that matter, if they don't). Alternatively, I will periodically (daily?) remail all mail.
- 4) BE CAREFUL about overloading BBSs with automatically generated mail.
- 5) Suggestions, complaints, and other feedback is, of course, encouraged. I've installed this feature as a standalone program called by the forward file for both the WORLI 6,7,8.xx and WA7MBL 3,4, and 5.xx codes. All BBS sysops are welcome to it.

NEXT WGBH OPPORTUNITY IS MARCH 11th

As you may recall from our last *PacketEar*, hams manned the WGBH-TV phone bank on Sunday, December 10th from 3 to 7 p.m. The consensus was that our group had a good time and would like to do it again. Of particular interest were guided tours of the TV and FM facilities. Apparently WGBH also enjoyed our visit—they have invited us to return on Sunday, March 11th in the same 3 to 7 time slot. We can accept a total of 65 people—all hams and their families (age 14 and up) are invited. To sign up, call Dave Crocker, W1TMO, at 617-444-7020. WGBH has indicated they also need about a dozen extra hands at 1:30 p.m. If you can come in early please let us know.

After our last session, several of the group went out to eat. If you would like to join in, please tell us that also. We are open for suggestions as to where to go, preferably a place that is not too far from the WGBH studio.

to be used for a node in Framingham, MA. YDL sent back a note thanking us and the TNCs will be delivered once Barry is ready to implement the node. As a reminder, NEPRA still has two MFJ 1270B TNCs for use somewhere in the network. If your club or organization is willing to support a node somewhere in New England, NEPRA can "loan" these two TNCs to you for that purpose. Contact WB1DSW (or any club officer) for information regarding our equipment loan procedure.



STRICT DEADLINE For *PacketEar*

An opportunity to print the *PacketEar* at considerable savings requires that all material for the newsletter be in the editor's hands by noon of the second Sunday before each meeting.

The Next Deadline is Sunday, February 25th.

NEPRA Officers and Staff

President Jim Morris, K1UGM
617-245-2897
Vice President Mort Cohan, K1IU
Technical VP Doc Willard, W1EO
Secretary Lew Scott, W1CE
Treasurer Herb Salls, WB1DSW
Member-at-Large Dave Crocker, W1TMO
and *PacketEar* Publisher 617-444-7724

Please send editorial contributions to:

W1TMO @ N1BGG

or to NEPRA *PacketEar*

c/o David C. Crocker, W1TMO

80 Spring Road, Needham, MA 02194

Tel: 617-444-7020 — Fax: 617-444-8316

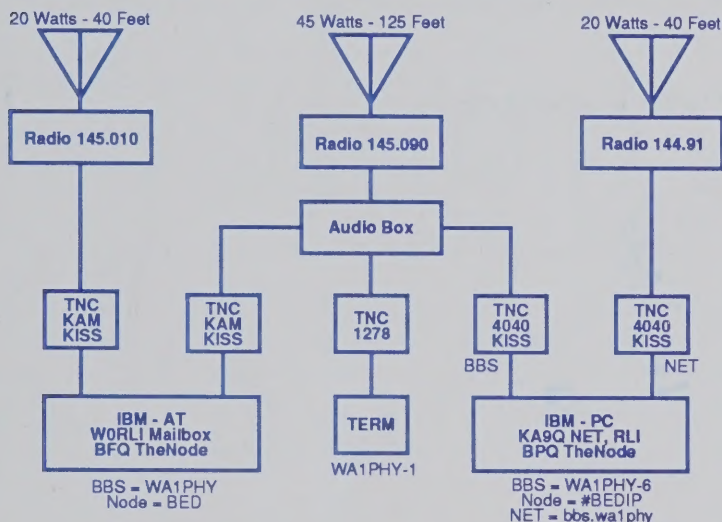
DEADLINE for the *PacketEar* is the Saturday of the second weekend before the scheduled NEPRA meeting.

The Weekly Packet Net meets on Friday @ 8:00 pm on the 146.625 (-600) Haverhill machine.

WA1PHY Station Configuration

by DoC, W1EO sysop

The WA1PHY Packet Radio station now provides gateway translation of messages between the AX.25 WORLI and the K9RN NET worlds. First, a description of the station in order to put everything in context. The station consists of two computers (each running two communications ports), five TNCs, three radios and three antennas. The IBM AT runs two DESQView windows of WORLI Mailbox under G8BPQ TheNode software using KAMs in KISS mode. One KAM is connected to a radio running 20 watts on 145.010 Mhz and a Isopole at 40 feet. The other KAM is connected through an audio combining box to a radio running 45 watts on 145.090 Mhz and a colinear at 120



feet. The other computer, an IBM PC runs one DESQView window of WORLI Mailbox under G8BPQ TheNode software to a Heathkit 4040 TNC1 in KISS mode to the audio combining box and then to the 145.090 Mhz radio system. Another DESQView window runs KA9Q NET software using a second Heathkit 4040 TNC1 in KISS mode to a radio running 20 watts on 144.910 Mhz to a Ringo Ranger at 20 feet. A third DESQView window on the PC runs K3MC Gateway software. The audio combining box also connects a separate TNC connected to a dumb terminal for local testing.

The combining box connects the transmit and receive audio signals from the three TNCs and from the radio together via an isolation amplifier and ties all four PTT lines in parallel. This permits stations to connect to either computer via the shared radio and allows the two computers to auto-forward messages to each other without requiring the use of an external digipeater or Node. The radio CAN get real busy however, since it can be supporting as many as two Mailbox users on each computer as well as multiple Node users simultaneously.

The Mailbox ports on 145.010 and 145.090 Mhz use the callsign WA1PHY. TheNode callsign on these ports is BED/WA1PHY-3. The Mailbox port from the second computer uses the callsign WA1PHY-6 and its TheNode callsign is #BEDIP. The NET port on the second computer (bbs.wa1phy.ampr.org) (44.56.0.86) also uses WA1PHY-6 as its callsign.

For a TCPIP station to send a message to a AX25 Mailbox station, the message should be addressed to "Wlxx%WA1PHY" or "Wlxx@Klyy%WA1PHY". Both messages will be translated to the Mailbox program in the other window. Then at the next forwarding period the Mailbox will auto-forward the messages on 145.090 Mhz to the AT for delivery via the AX25 hierarchical routing. For an AX25 station to send a message to a TCPIP station, the message should be entered into the Mailbox on

either 145.010 or 145.090 using the WA1PHY callsign. These messages should be addressed as "SP Wlxx @ WA1PHY.#BEDIP" or to one of the specially translated stations such as "SP KA1MF" or "SP W1IMM". Each of these messages will be auto-forwarded to the Mailbox window in the TCPIP computer on 145.090 Mhz during the next forwarding period. In order to be delivered by the smtp the recipient must be known by the bbs.wa1phy NET station.

Currently, bbs.wa1phy only operates on 144.910 Mhz but we have a good link with WB6NIL. W1EO, Doc, is chief sysop for all of the WA1PHY stations and KA1MF, Don, is sysop for the NET station at WA1PHY. If you have problems or suggestions please feel free to leave messages for either of them on either station. The complete station is (always) in a state of evolution - bringing the latest software versions on line and attempting to add new features. Every attempt is made to maintain the station at 100% availability. The whole station is connected to emergency power generators. When the commercial power is interrupted, the generators start automatically. Once the line voltage comes up to specification the station reboots and comes back on line. This usually takes about 2 minutes. When the commercial power resumes, the circuits switch back and the station reboots again. This is one of the few stations in the area to provide this feature.

HOW TO USE THE WA1PHY BBS - TCPIP GATEWAY

by DoC, W1EO

The WA1PHY WORLI Mailbox has recently implemented a message translation gateway through which messages can be exchanged between the RLI and TCPIP worlds. Messages can now be exchanged in both directions. The following paragraphs outline the processes that you must use to cause messages to be translated.

1) From WA1PHY RLI Mailbox to TCPIP

Messages to some stations are automatically sent to TCPIP - any message can be forced to be forwarded by addressing it properly. Currently the following station callsigns cause messages to be automatically forwarded to TCPIP;

KA1MF W1IMM WA1EQU KA8SCP N1GCR N1FMK

In addition, if a message is addressed as 'SP Wlxx-@Wlyy.#BEDIP' it will also be forwarded to TCPIP for delivery. In the above example, "Wlxx@Wlyy" would be the TCPIP callsigns where you intend the message to be sent, ie; 'SP KA1MF@KA1MF.#BEDIP'. Note: Leave a message to W1EO, sysop, if you want to add your callsign to this list.

2) From TCPIP to WA1PHY RLI

Messages addressed in a certain format will be automatically forwarded to the RLI mailbox. Use the format 'Wlxx-%Wlyy.ST.CNT@bbs.wa1phy'. The "bbs.wa1phy" is the alias for the WA1PHY TCPIP station on 144.910 Mhz. The "Wlxx" is the station to receive the message and the "Wlyy" is the BBS Mailbox where Wlxx receives his mail. In general the "Wlyy" should have the two letter state identifier added as indicated by the "ST" in the above example. This will assist in automatically forwarding of the message through the BBS hierarchical routing network anywhere in the USA. In addition, the country of destination can be added as the "CNT" in the example above. This will assist in the international forwarding of messages. If you are uncertain whether WA1PHY will translate the message to the BBS world, add the state and country extensions and the message will be translated solely on those pieces of information.

Any questions? Leave messages for W1EO or KA1MF in either world!

JOE...KC1D

PETE...KI1M

NANCY...N1CXC

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REMINDER

NEPRA/ARRL RENEWAL

My League Renewal is due: _____

My NEPRA dues are due: _____

Regular ARRL Membership rates: for 1 year - \$25, for 2 Years - \$47, For Three Years - \$65

Senior ARRL Membership Rates: for 1 Year - \$20, for 2 Years - \$37, For Three Years - \$50

1. Make check or money order out to "NEPRA" in the amount selected
2. Annotate the check or money order "NEPRA/ARRL Renewal"
3. Attach Check or money order to the ARRL Renewal Application
4. Mail both items to: NEPRA, Box 208, East Kingston, NH 03827 or submit them to any club officer at our regular monthly meeting. Do this upon receipt of the ARRL Renewal Reminder. Do not wait until the last minute, please!!!

Follow-up through NEPRA if you think something has gone wrong. We will try to correct any error promptly. Consult your most recent *Packetear* or club officer for contact information.

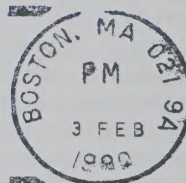
NEPRA PacketEar

New England Packet Radio Association
P.O. Box 208
East Kingston, NH 03827

MEMBERSHIP in NEPRA is open to all amateurs with an interest in packet radio. Annual dues are \$15. The expiration date for current members is given on your mailing label. If the date has been circled in red, the expiration date is imminent. The address for new memberships or renewals is given above.

NEPRA MEETINGS are held at the Bull (former Honeywell) plant cafeteria in Billerica on the Second Thursday of each month. Take Route 3 to exit 27, Concord Road. Proceed West a couple of hundred yards and you will see a sign and entrance to Bull on the left. Parking and entrance are at the rear of the building. New Users Session @ 7:00 pm. General Meeting @ 8:00 pm. Talk-in is available on 147.12 MHz.

NEXT MEETING — FEBRUARY 8!



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